

Maryland's natural gas, electricity and nuclear power companies are joined by solar, wind, wave and biomass enterprises with a shared vision toward the state's "smart, green and growing" energy future. The state receives electric power via North America's largest power pool, the PJM Interconnection. Calvert Cliffs Nuclear Power plant, in operation since 1975, supplies all of Maryland's nuclear power and accounts for more than one-fourth of total electric generation. Further, Maryland's Renewable Portfolio Standard (RPS) requires that 20 percent of the state's energy come from renewable sources by 2022. The state's 1,300 energy and sustainability businesses generate \$7.72 billion in gross state product.

Major Energy & Sustainability Employers in Maryland

Employer	Employment	Product / Service
Exelon	6,730	Energy services
Bechtel	1,580	Environmental clean-up services
Washington Suburban Sanitary Commission	1,520	Water and wastewater services
W.R. Grace & Company	1,050	Petroleum refining technologies
Potomac Electric Power (PEPCO)	610	Energy services
NRG	500	Energy services
Waste Management	500	Waste treatment and disposal
KCI Technologies	490	Environmental planning and engineering services
Johnson, Mirmiran & Thompson (JMT)	480	Environmental planning and engineering services
Rummel Klepper & Kahl (RK&K)	450	Water and wastewater services

Note: Numbers are rounded.

Source: Maryland Department of Business and Economic Development, April 2014.

Selected Rankings

- Maryland ranks 9th in the 2013 State Energy Efficiency Scorecard compiled by the American Council for an Energy-Efficient Economy. The report ranks states on the adoption and implementation of policies to forge an energy efficient economy which reduces energy costs, spurs job growth, and benefits the environment.
- In the 2013 Enterprising States study which looks at how states are creating an environment in which the private sector can thrive, Maryland ranks first in "Entrepreneurship and Innovation," third in the human capital "Talent Pipeline," and ninth in "Growth and Economic Performance."
- Maryland ranks second among the states in the square footage of LEED-certified commercial and institutional green buildings per capita.

Industry Snapshot – Energy & Sustainability in Maryland

- Employment (2013) – 26,110 private sector jobs (36,590 including public sector)
Leading subsectors:
 - Waste management and remediation – 9,600 jobs
 - Electric and gas power generation, transmission and distribution – 9,200 jobs
 - Administration of environmental quality programs – 5,000 jobs
 - Regulation and administration of utilities – 4,300 jobs
- Business establishments (2013) – 1,300
- Total wages (2013) – \$2.81 billion
- Average salary (2013) – \$76,680
- Gross state product (2012) – \$7.72 billion

- Federal procurement (FY2013) – \$395 million

Sources: Maryland Department of Labor, Licensing and Regulation; U.S. Bureau of Economic Analysis; U.S. Census Bureau.

Employment by Occupation

Maryland Employment – May 2013

Selected Occupations	Employment	Location Quotient*	
		Index	Rank
Computer systems analysts	12,130	1.25	8
Computer programmers	6,980	1.17	12
Software developers, applications	12,240	.99	14
Computer network support specialists	6,220	1.97	1
Electrical engineers	4,750	1.48	7
Electronics engineers, except computer	4,520	1.75	5
Materials engineers	700	1.51	8
Mechanical engineers	5,380	1.09	14
Electrical and electronic engineering technicians	3,670	1.36	8
Biochemists and biophysicists	1,330	2.40	4
Microbiologists	1,290	3.39	2
Conservation scientists	420	1.18	22
Atmospheric and space scientists	860	4.16	3
Materials scientists	140	1.00	14
Environmental scientists and specialists, including health	2,320	1.39	12
Geoscientists, except hydrologists and geographers	580	.87	16
Hydrologists	90	.72	26

* Location Quotient index indicates concentration of the occupation in Maryland, with national average equal to 1.0. Rank indicates Maryland's rank among the 50 states.

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics.

Assets & Resources

Maryland Clean Energy Center – First in the nation and supports renewable energy through development, technology commercialization, business incubation and workforce development.

Maryland Clean Energy Technology Incubator @ bwtech - Designed for early-stage companies working with clean energy, as well as energy management and storage technologies. A joint venture with the Maryland Clean Energy Center, the incubator is the first in a planned statewide network of clean energy incubators.

University of Maryland Center for Environmental Sciences (UMCES) – Uses science to transform the way society understands and manages the environment. With four locations strategically placed between the mountains and sea, UMCES research laboratories provide scientists direct access to Maryland's diverse natural ecosystems.

University of Maryland Energy Research Center – Focuses on energy science and technology with a special focus on alternative energy generation and storage.

University of Maryland College Park – Other research assets include the Center for Environmental Energy Engineering, the Center for Energetic Concepts Development, and the Harry R. Hughes Center for Agro-Ecology, Inc.

New & Expanding Businesses

- **Old Dominion Electric Cooperative** (Cecil County) – Was given final approval to construct a \$675 million power plant at Wildcat Point. The Virginia-based nonprofit expects to create 600 temporary construction jobs and employ 30 full-time staff after the project opens in 2017. (April 2014)
- **Vivint Solar** (Frederick County) – Leased 11,200 square feet for a warehouse and operations center for design, installation and maintenance of solar energy systems. The Utah-based residential solar solutions provider has 100 full-time employees in Beltsville and will hire 30 in Frederick. (April 2014)
- **Exelon** (Baltimore City) – Will break ground on its 648,000-square foot regional headquarters in Harbor East. The Chicago-based power provider plans to occupy the new building by 2016. (March 2014)
- **Synagro Technologies** (Baltimore County) – Decided to close its Houston co-headquarters and make White Marsh its corporate home. The waste recycler plans to increase its employment here by about 50, from 41 to nearly 100. (April 2013)
- **Aries Enterprises** (Prince George's County) – Hopes to grow to 25 employees from its current 15 by the end of the year. The Upper Marlboro shredding, construction and recycling company has a stronger hiring outlook this year and believes it will eventually grow beyond 50 employees. (January 2013)
- **Chesapeake Compost Works** (Baltimore City) – Plans to open a 54,000-square-foot organic waste compost facility in October. This green industrial recycling operator will hire ten employees during the next year. (September 2012)
- **GreeNEWit** (Howard County) – Expects to hire at least a dozen employees within the year, including retrofit service providers, engineers and software developers. The Columbia-based energy efficiency and implementation company currently employs 35. (July 2012)
- **SolarCity** (Prince George's County) – Has grown from twelve to over 100 employees and opened an expanded operations center in Beltsville. The California-based company has provided solar energy services to more than 1,000 buildings across Maryland. (July 2012)

Programs & Incentives

- **Maryland Small Business Development Financing Authority** – Assists small businesses that are unable to qualify for business financing through normal financing channels, including businesses owned by economically and socially disadvantaged entrepreneurs.
- **Maryland Industrial Partnerships** – Accelerates commercialization of technology by jointly funding collaborative R&D projects between companies and University System of Maryland faculty.
- **Maryland Venture Fund** – State funded seed and early-stage equity fund.
- **Maryland Technology Development Corporation** – Facilitates technology transfer from academic and federal labs into the private sector with seed funding, technical assistance and entrepreneurial support programs.
- **Enterprise Zone Tax Credit** – Real property and state income tax credits for businesses locating in zones making capital investments and creating new jobs.
- **Research & Development Tax Credit** – Credit for R&D expenses for certified businesses.
- **Cellulosic Ethanol Technology R&D Tax Credit** – State income tax credits for businesses that incur qualified cellulosic ethanol technology research and development expenses in Maryland.
- **Maryland Energy Administration** – Incentives include the Commercial and Industrial Energy Efficiency Loan Fund, Green Building Tax Credit, Clean Energy Production Tax Credit, BioHeat Tax Credit, and geothermal, solar and wind energy rebates.

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